an end point extraction step of extracting an end point of an object area in said image data from the characteristic quantities calculated in said characteristic quantity calculation step;

an end point storage step of storing coordinates of end points extracted in said end point extraction step;

a rotation angle indication step of indicating an angle of a rotation axis onto which the end points stored in said end point storage step are projected;

an accumulated quantity calculation step of calculating projection of the end points stored in said end point storage step onto said rotation axis of the angle indicated in said rotation angle indication step and calculating an accumulated quantity of said projection of the end points in a conditioned area on said rotation axis;

an accumulated quantity storage step of storing said accumulated quantity calculated in said accumulated quantity calculation step; and

a determination step of determining a boundary line of the object area from said accumulated quantities stored in said accumulated quantity storage step.

22.   (Twice Amended)   A method according to Claim 21, wherein a rotational center of said rotation axis onto which the end points stored in said end point storage step are projected is placed at a barycenter of image data not less than a predetermined density value.

25.   (Twice Amended)   An image processing apparatus comprising:

2

characteristic quantity calculation means for calculating characteristic quantities of image data;

end point extraction means for extracting an end point of an object area in said image data from the characteristic quantities calculated by said characteristic quantity calculation means;

end point storage means for storing coordinates of end points extracted by said end point extraction means;

rotation angle indication means for indicating an angle of a rotation axis onto which the end points stored in said end point storage means are projected;

accumulated quantity calculation means for calculating projection of the end points stored in said end point storage means onto said rotation axis of the angle indicated by said rotation angle indication means and calculating an accumulated quantity of said projection of the end points in a conditioned area on said rotation axis;

accumulated quantity storage means for storing said accumulated quantity calculated by said accumulated quantity calculation means; and

determination means for determining a boundary line of the object area from said accumulated quantities stored in said accumulated quantity storage means.

28.   (Twice Amended)   A computer-readable storage medium storing a program for carrying out an image processing method, the method comprising the steps of:

a characteristic quantity calculation step of calculating characteristic quantities of image

3

data;

an end point extraction step of extracting an end point of an object area in said image data

from the characteristic quantities calculated in said characteristic quantity calculation step;

an end point storage step of storing coordinates of end points extracted in said end point

extraction step;

a rotation angle indication step of indicating an angle of a rotation axis onto which the

end points stored in said end point storage step are projected;

an accumulated quantity calculation step of calculating projection of the end points stored

in said end point storage step onto said rotation axis of the angle indicated in said rotation angle

indication step and calculating an accumulated quantity of said projection of the end points in a

conditioned area on said rotation axis;

an accumulated quantity storage step of storing said accumulated quantity calculated in

said accumulated quantity calculation step; and

a determination step of determining a boundary line of the object area from said

accumulated quantities stored in said accumulated quantity storage step.

4